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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/594,733

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Hiroshi Shibaoka

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EXAMINER

STEELE, JENNIFER A

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/594,733	Applicant(s) SHIBAOKA ET AL.	
	Examiner JENNIFER STEELE	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim 1-10 rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Akamatsu et al (US 5,273,813).

Claim 1 describes a polyester fabric having

- a total cover factor of not lower than 1500 and
- a mass per unit area of not higher than 45 gsm
- wherein said polyester fabric is composed of
 - polyester multifilament A yarns having a total fineness of not higher than 25 dtex and a single yarn fineness of not higher than 2.0 dtex and
 - multifilament B yarns having a total fineness of not lower than 35 dtex

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- wherein the arrangements of the respective yarns in the warp and weft directions are such that the yarn constitution ratio "B yarn/A yarn" is $\frac{1}{4}$ to $\frac{1}{20}$ (number of yarns to number of yarns ratio) and
- wherein the A yarn to B yarn pitches are not longer than 7 mm.

Akamatsu is directed to a fabric material that has high resistance to tearing and is useful for sporting goods utilizing wind pressure, for example, yacht sails, paragliders and hanggliders. Akamatsu teaches a woven fabric of polyester fibers wherein the basis weight is 20-100 gsm (ABST) which encompasses the claimed range of not higher than 45 gsm.

Akamatsu teaches the polyester fibers have an individual fineness of 1.5 to 3.0 deniers, which is equivalent to 1.65 to 3.3 dtex. A dtex of 1.65 is within the claimed range of less than 2.0 dtex. Akamatsu teaches a multifilament polyester yarn is made from the fine fibers. Akamatsu teaches the multifilament polyester yarn can be 20 denier (col. 12, lines 40), which is equivalent to 22 dtex and in the claimed range of less than 25 dtex.

Akamatsu teaches the polyester fabric is woven in a structure (col. 11 and 12) of warp and weft yarns densities of 150 yarns/ 25.4 mm with a 20 denier multifilament yarn. The weaving structure has 20 polyester multifilament yarns having a denier of 20 (referred to as thin yarns) / a thick yarn which is composed of doubled three 20, 40 or 75 denier yarns / 2 thin yarns / 1 thick yarn. The thin yarn is equated with the claimed multifilament A yarn of less than 25 dtex. The thick yarn has a fineness of three 20 denier yarns that are doubled which is a total denier of 120 denier or 132 dtex. The

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thick yarn is equated with the claimed multifilament B yarn of fineness not lower than 35 dtex.

Akamatsu's weaving pattern has 2 thick yarns for every 22 thin yarns which within the claimed ratio of 1-B yarn to 4-A yarns and 1-B yarn to 20-A yarns.

Akamatsu teaches there are 150-20 denier yarns per 25.4 mm. For the pattern of 20 thin yarns to 1 thick yarn, 20 thin yarns would occupy a width of 3.4 mm ($20/150 \times 25.4$ mm). Therefore there would be a B yarn or thick yarn, every 3.4 mm and this structure is in the claimed range where the A yarn to B yarn pitches are less than 7 mm.

Akamatsu differs and does not teach the property of cover factor not lower than 1500. However Akamatsu teaches the same materials and weaving structure and it is presumed that the claimed property of cover factor would be inherent to the structure of Akamatsu. When the reference discloses all the limitations of a claim except a property or function, and the examiner cannot determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention the examiner has basis for shifting the burden of proof to applicant as in *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980). See MPEP § 2112- 2112.02

As to claim 2, Applicant describes parallel yarns as double, triple or quadruple yarns [0028] and Akamatsu teaches the B yarns are doubled A yarns (col. 8, lines 60-64).

As to claims 3 and 7, Akamatsu teaches the woven fabric is scoured, pre-heat set and dyed in a customary manner and then heat-treated under predetermined conditions (col. 9, lines 3-5). Akamatsu teaches the filaments are fed through a feed

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roller and a nip roller (col. 6, lines 58-61) which is a process that is equated with calendering. Akamatsu differs and does not teach the fabric is calendered. Process limitations in claims are not limited to the manipulations of the recited steps, only the structure implied by the steps. "In re Thorpe , 227 USPQ 964, 966 (Fed. Cir. 1985).

Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a *prima facie* case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). "When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not." *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, the *prima facie* case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. *In re Best*, 562 F.2d at 1255, 195 USPQ at 433. See also *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985)

Akamatsu teaches the properties of higher tear strength and lower air permeability is desirable. Akamatsu presents tear strength and air permeability values for the woven fabric in Table 4. Examples 21 and 22 employ the same yarn size and pattern as claimed. The tear strengths of Examples 21 and 22 are 1.72 and 2.00 kg which is equivalent to 17-19 N and in the claimed range of not lower than 7 N. The air permeability is 0.25 to 0.3 ml/cm²/sec which are in the claimed range of not higher than 1.2 ml/cm²/sec.

Claims 4-6 and 8-10 are statements of use and do not distinguish the claimed invention from the prior art. As Akamatsu teaches a woven polyester fabric for sporting goods, the woven polyester fabric could be used for an outdoor application such as an umbrella or a downproof fabric.

Response to Arguments

2. Applicant's arguments, with respect to the rejection(s) of claim(s) 1, 3-6 under 35 USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Akamatsu. Applicant argues that the reference to Fukunishi is directed to a polyamide textile and not a polyester fabric. Applicant's arguments are persuasive and new 35 USC 102 grounds of rejection over Akamatsu presented in this Office Action. As a result, this Office Action is Non-Final.

3. Applicant's arguments, with respect to the rejection(s) of claim(s) 2 and 7-10 under 35 USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Akamatsu.

4. Applicant amended claims 6 and 10 and the 35 USC 112 2nd paragraph rejection is withdrawn.

5. Applicant submitted translated priority documents in order to perfect the priority of the application and overcome the references to Fukunishi and Corner. As the rejection over Fukunishi and Corner has been withdrawn, the claimed priority is moot.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER STEELE whose telephone number is

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(571)272-7115. The examiner can normally be reached on Office Hours Mon-Fri 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. S./

Examiner, Art Unit 1794

12/28/2009

/Rena L. Dye/

Supervisory Patent Examiner, Art Unit 1794